

REMARKS

The present amendment is submitted in response to the Final Office Action dated November 24, 2003, which set a three-month period for response, making this amendment due by February 24, 2004, or by January 24, 2004 if filed within two months.

Claims 1, 2, 4-8, and 10-12 are pending in this application.

In the Final Office Action, claims 1, 2, 4, 5, 7, 8, 10, and 11 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,872,578 to Ullom. Claims 6 and 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ullom.

In this amendment, it is proposed to limit claim 1 to the connection of a ring magnet with a shaft. Amended claim 1 defines further that axial dimensions of the deformation regions (18) are smaller than an axial deformation of the inner surface (14) of the ring magnet.

The newly cited reference to Ullom discloses that deformation regions are impressed onto a shaft by means of a stamping tool. The deformation regions are hereby formed as grooves 26 in the axial direction with connecting ridge 24, whose axial deformation according to Figure 2 has a multitude of the axial thickness of the gear wheel 28 (bore 30). In column 2, lines 49-53, it is disclosed that the material of the shaft is harder than that of the gear wheel, which, for example, is made from an aluminum alloy, nylon, or a similar plastic. The gear wheel 28 is displaced over a wide axial region of the shaft to an end position, so

that in this manner, primarily, a protection against torsion is produced (column 2, lines 38-39), however, a permissible protection against an axial displacement is produced.

According to the present invention, the ring is formed as a ring magnet, which is not made from a soft material, rather from a relatively brittle sinter material. The ring magnet therefore, is particularly sensitive to a radial or axial effect of force. The deformation regions, according to the present invention, are formed therefore, such that their axial deformation is smaller than the axial deformation of the ring magnet. Thus, the axially engaging forces occur only for a very short time upon displacement of the ring magnet into its end position. Because the deformation regions are completely within the inner surface of the mounted ring magnet, the edges of the deformation region contribute over their complete circumference to an enlargement of the shaft diameter, whereby not only a protection against torque is produced, but also a protection against axial displacement (by superelevated edges of the deformation region transverse to the shaft).

This is disclosed on page 3, lines 12-16 of the present application and shown in Figures 1 and 3, where the deformation regions are circular. Ullom fails to disclose or suggest deformation regions whose axial deformation is smaller than the axial deformation of a ring magnet to be attached. Because Ullom fails to disclose at least this one feature of amended claim 1, the rejection of claim 1 under Section 102 cannot be maintained. A prior art reference anticipates a claim only if the reference discloses every limitation of the claim. Absence from

the reference of any claimed element negates anticipation. *Row v. Dror*, 42 USPQ 2d 1550, 1553 (Fed. Cir. 1997) (quoting *Kloster Speedsteel AB v. Crucible, Inc.*, 230 USPQ 81, 84 (Fed. Cir. 1986)).

Also in this amendment, the Applicants propose to add claim 13, which also is limited to the connection of the ring magnet with a shaft and also includes the features of original claim 4, relating to the projections having a conical shape. This limitation is supported by Figures 1 and 3 in connection with the description on page 5, lines 13 and 14, which makes clear that the word "conical" or "conically shaped" is to be understood as a deformation region with a round surface, which has a diameter d . Since according to the Final Office Action, the Examiner understands Ullom to contemplate that "the impressed features had a conical shape (...4 and 5)" in Figures 4 and 5, the Applicants respectfully submit that there is a misunderstanding as to the intended meaning of the word "conical" or "cone".

According to the present invention, "cone" or "conical" is to be understood as a deformation region with a round or circular cross section perpendicular to the pressing or stamping direction (Figure 1), which conically projects along the pressing direction (Figure 1, Section A-A).

Such a circular cone central to the inner surface of the ring and arranged therein has the same advantages as those discussed with reference to claim 1 above. The edge of the conical impression affects over its entire circumference an enlargement of the shaft diameter, whereby the magnet ring is secured against twisting and axial displacement. In addition, with assembly of the

sensitive magnet ring, axial forces occur only for a short time, so that the magnet ring is protected from damage.

It should be noted once more that the newly added features that the deformation regions are arranged exclusively in the center of the inner surface and that the impressed features have a circular or round conical shape all are disclosed in the original application or are recited in the original claims. Thus, the proposed amendments do not constitute "new matter" or raise "new issues" that would require further search.

For the reasons set forth above, the Applicants respectfully submit that claims 1-2, 4-8, and 10-12 are patentable over the cited references. The Applicants further request withdrawal of the final rejections under 35 U.S.C. 102 and 103 and reconsideration of the claims as herein amended.

In light of the foregoing amendments and arguments in support of patentability, the Applicants respectfully submit that this application stands in condition for allowance. Action to this end is courteously solicited.

Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,



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